

REMARKS

The above-listed drawing and claim amendments along with the following remarks are fully responsive to the Office Action set forth above. Figure 1 and claims 1, 7, and 8 are amended. Specifically, claims 7 and 8 have been amended to correct antecedent bases issues noted in the course of the preparation of this response. After entry of this Amendment, claims 1-14 are pending. No new matter is introduced into the application by the drawing or claim amendments.

Claim Rejections – 35 U.S.C. § 103

The Office Action has rejected claims 1-14 as unpatentable over U.S. Pat. 5,496,201 to Hwang (“Hwang”). The Office Action admits that Hwang is directed toward processing a plurality of gas discharge lamps and not laser block assemblies, but states that it would have been obvious to apply the Hwang reference to a plurality of any gas discharge devices, including lasers and ring lasers. Applicant respectfully disagrees that it would have been obvious to apply the Hwang reference to laser block assemblies. In addition, claim 1 has been modified to more particularly point out and distinctly claim the invention.

As modified, claims 1, 2, 3, and 11 recite an elongated member with a first end and a sealed second end. This configuration allows the current invention to be adapted to equipment on a single end. With this configuration, the current invention can be attached to processing equipment at a single point, to allow for efficient attachment to multifunction processing tools that are customarily used to process laser block assemblies. Batches of laser block assemblies can therefore be efficiently processed using conventional processing tools.

In contrast, Hwang teaches an elongated member with detachable joints at each end, each of which is used to connect to external devices and neither of which is sealed. Hwang teaches that one end of its manifold is attached to a vacuum system and that the other end is attached to a material introduction system, suggesting that evacuation of the manifold is achieved by equipment attached on one end and introduction of materials is achieved by equipment attached to the other end. Hwang does not teach or suggest that processing can be achieved without attaching processing equipment to each end of the manifold or that a

second end is sealed. The processing efficiencies and other advantages of the applicant's claimed invention are therefore not provided by this system.

In addition, Hwang does not teach or suggest that it can be adapted to process laser block assemblies. Hwang is primarily directed at removing moisture from gas discharge lamps to prevent metal salts from absorbing moisture and degrading the quality of light from the lamp. In contrast, the current invention is directed at removing impurities in a laser assembly. If the impurities are not removed, the laser block assembly may not function properly. There is no suggestion in Hwang that the device used as part of a process to remove moisture from a lamp that later has metal salts deliberately introduced into it can be adapted to remove impurities from a sophisticated device such as a laser block assembly. For these reasons, it is submitted that claim 1 is not obvious over Hwang and that the rejection of claim 1, and claims 2, 3 and 11, which are dependant upon claim 1, should be withdrawn.

Claim 4 is dependant from claim 3, which, as is submitted above, is not obvious over Hwang. In addition, claim 4 recites a first tube that is an isolation tube formed from a non-conductive material. The Office Action states that it would be obvious to use known materials based on the processing fluids used. However, Hwang does not contemplate having a manifold adapted to process laser block assemblies. Hwang does not consider that charged materials such as plasma might be used to purge impurities from a laser block assembly. When a charged material such as a plasma is used to process the laser block assemblies, a non-conductive first tube can prevent the feedback of an electrical charge into the manifold and processing equipment. Hwang teaches that its manifold is connected to a vacuum piping system on one end and an inert gas supply on the other. It does not suggest that any other materials can be used, and therefore does not contemplate whether it would be advantageous to construct a manifold having a first tube made of non-conductive materials. For this additional reason, it is submitted that claim 4 is not obvious over Hwang and that the rejection of claim 4 should be withdrawn.

Each of claims 5 and 6 is dependant from claim 4, which, as is submitted above, is not obvious over Hwang. Claims 5 and 6 further characterize the invention by reciting specific

materials – glass and ceramic, respectively – from which the first tube may be formed. As is discussed in reference to claim 4, the first tube may be formed from a non-conductive material to achieve certain advantages when using, for example, charged materials to process laser block assemblies. Claims 5 and 6 recite particular non-conductive materials that will achieve these advantages. Again, Hwang does not contemplate using a manifold to simultaneously process multiple laser block assemblies with charged materials. Therefore, Hwang provides no motivation to use non-conductive materials such as glass and ceramic to form the first tube. For this additional reason, it is submitted that claims 5 and 6 are not obvious over Hwang and that the rejection of claims 5 and 6 should be withdrawn.

Claim 7 has been modified to recite an element of the claim with proper antecedent basis. Claim 7 is dependant from claim 3, which, as is submitted above, is not obvious over Hwang. Claim 7 further characterizes the invention as having a compression fitting that mates the first tube to the fill tube. In contrast, as is described in the Office Action, Hwang has a ball valve connector between a first tube and a fill tube. For this additional reason, it is submitted that claim 7 is not obvious over Hwang and that the rejection of claim 7 should be withdrawn.

Claim 8 has been modified to recite the stacked array with proper antecedent basis. Claim 8 is dependent from claim 2, which as submitted above, is not obvious over Hwang. Claim 8 further characterizes the invention as having an arrangement of laser block assemblies that are arranged adjacent to each other in a stacked array so that a thickness of each of the assemblies is substantially parallel to the elongated member's longitudinal axis. By this arrangement, the current invention is capable of simultaneously processing a large number of laser block assemblies in a relatively compact area. As is described above, Hwang does not contemplate using a manifold such as is recited in the current invention to simultaneously process multiple laser block assemblies. Therefore, Hwang does not contemplate that a particular arrangement of laser block assemblies may be advantageous, nor does Hwang teach or suggest that laser block assemblies could be positioned in any particular arrangement. For this additional reason, it is submitted that claim 8 is not obvious over Hwang and that the rejection of claim 8 should be withdrawn.

Claim 9 is dependent from claim 8, which as submitted above, is not obvious over Hwang. Claim 9 further characterizes the invention as having an arrangement of laser block assemblies that are arranged adjacent and parallel to each other in a stacked array. As in claim 8, the arrangement recited in claim 9 is directed towards the simultaneous processing of a large number of laser block assemblies in a relatively compact area. In this arrangement, the laser block assemblies are positioned so that they are also parallel to each other, which allows an even more compact arrangement. As described above, Hwang does not contemplate using a manifold such as is recited in the current invention to simultaneously process multiple laser block assemblies, nor does Hwang suggest that any particular arrangement of laser block assemblies is advantageous. For this additional reason, it is submitted that claim 9 is not obvious over Hwang and that the rejection of claim 9 should be withdrawn.

Claim 10 is dependent from claim 2, which as submitted above, is not obvious over Hwang. Claim 10 further characterizes the invention as having laser block assemblies with particular features. The Office Action states that the laser block claimed in claim 10 is a conventional ring laser. However, Hwang does not teach or suggest that its manifold can be adapted for use with a ring laser, nor does it suggest that it can be used for a ring laser of the type recited in claim 10. For this additional reason, it is submitted that claim 10 is not obvious over Hwang and that the rejection of claim 10 should be withdrawn.

Claim 12 is dependent from claim 11, which, as submitted above, is not obvious over Hwang. Like claim 4, claim 12 recites a first tube that is an isolation tube formed from a non-conductive material. The Office Action states that it would be obvious to use known materials based on the processing fluids used. However, Hwang does not contemplate having a manifold adapted to process laser block assemblies. Hwang does not consider that charged materials such as plasma might be used to purge impurities from a laser block assembly. Hwang teaches that its manifold is connected to a vacuum piping system on one end and an inert gas supply on the other. It does not suggest that any other materials can be used, and therefore does not contemplate whether it would be advantageous to construct a manifold having a first tube made of non-conductive materials, as is described above. For

this additional reason, it is submitted that claim 12 is not obvious over Hwang and that the rejection of claim 12 should be withdrawn.

Each of claims 13 and 14 is dependant from claim 12, which, as is submitted above, is not obvious over Hwang. Claims 13 and 14 further characterize the invention by reciting specific materials – glass and ceramic, respectively – from which the first tube may be formed. As is discussed above, the first tube may be formed from a non-conductive material to achieve certain advantages. Claims 13 and 14 recite particular non-conductive materials that will achieve these advantages. Again, Hwang does not contemplate using a manifold to simultaneously process multiple laser block assemblies with charged materials. Therefore, Hwang provides no motivation to use non-conductive materials such as glass and ceramic to form the first tube. For this additional reason, it is submitted that claims 13 and 14 are not obvious over Hwang and that the rejection of claims 13 and 14 should be withdrawn.


Conclusion

The objection of Figure 1 has been overcome. All pending claims are now in condition for allowance. A notice to that effect is respectfully requested.

Respectfully Submitted,

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